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(54) **DOOR LOCK INSTALLATION KIT**

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(51) **Int. Cl.**

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E04F 21/00	(2006.01)
E05B 17/06	(2006.01)

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(58) **Field of Classification Search**

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USPC 408/185

See application file for complete search history.

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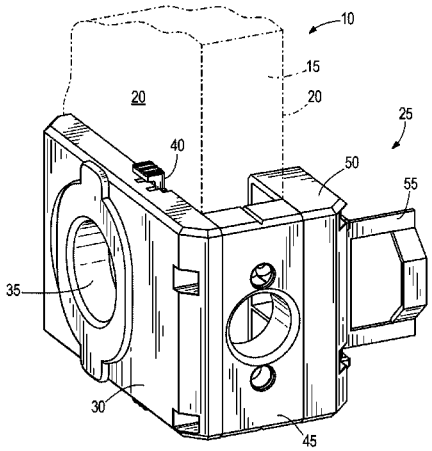
(57) **ABSTRACT**

A door lock installation kit for use with a first standard door width and a second standard door width, each door having a side face and a front face includes a side hole guide including a side hole aperture arranged to abut the side face of the door, a guide housing movably coupled to the side hole guide, and a back housing movably coupled to the side hole guide and arranged such that the back housing and the guide housing are movable to clamp the door and position the guide housing to abut the front face of the door. A front hole guide includes a front hole guide aperture and is movably coupled to the guide housing and movable to one of a first position corresponding to a first door backset and a second position corresponding to a second door backset.

23 Claims, 4 Drawing Sheets



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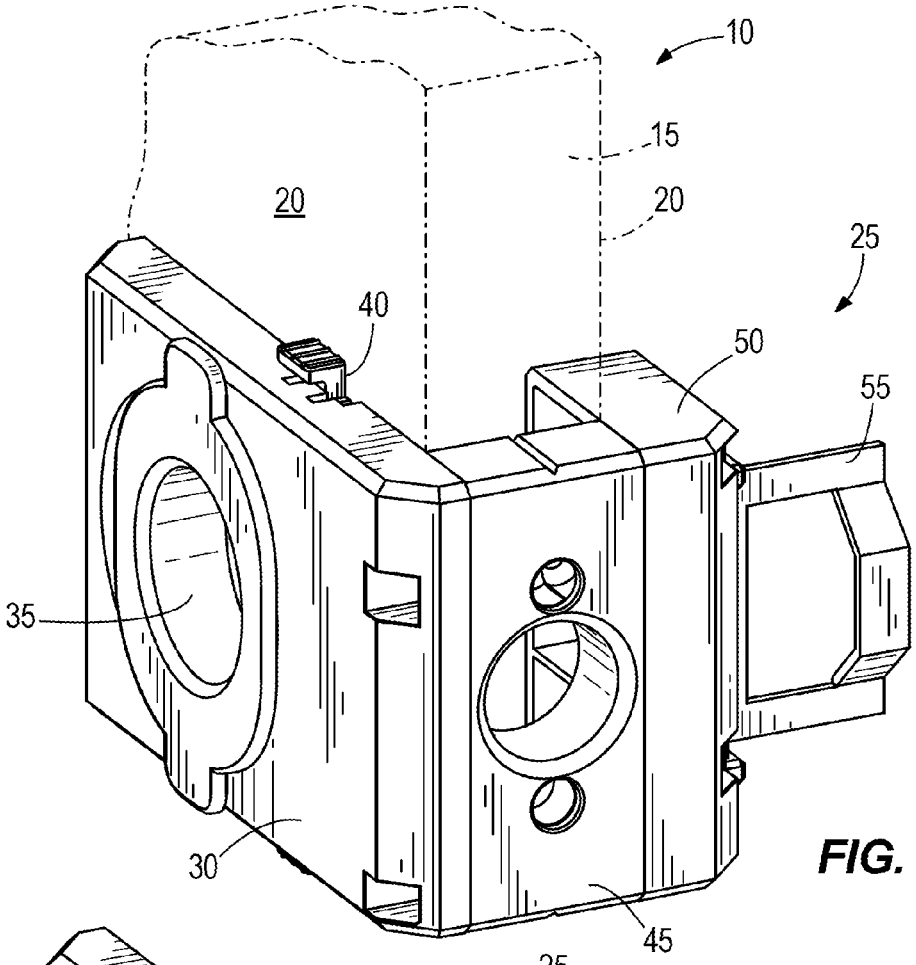


FIG. 1

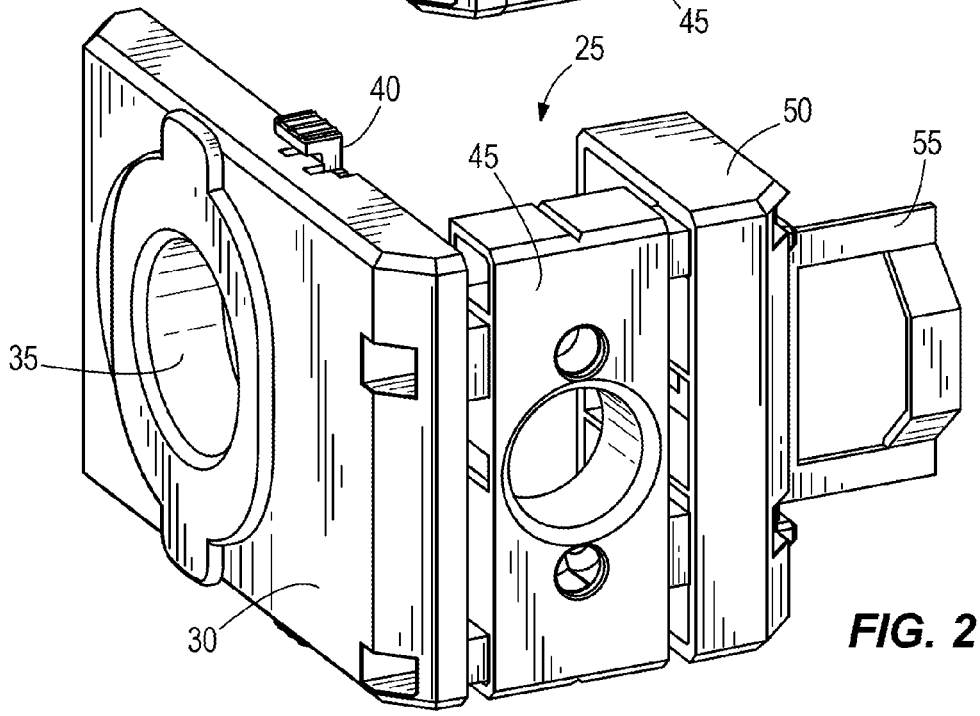


FIG. 2

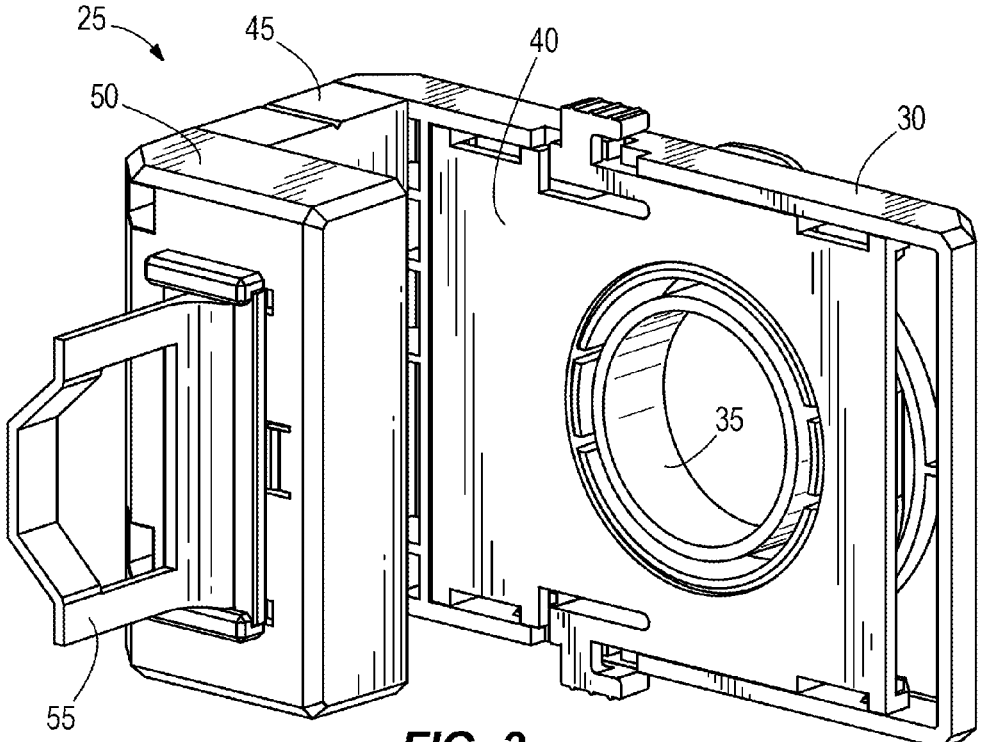


FIG. 3

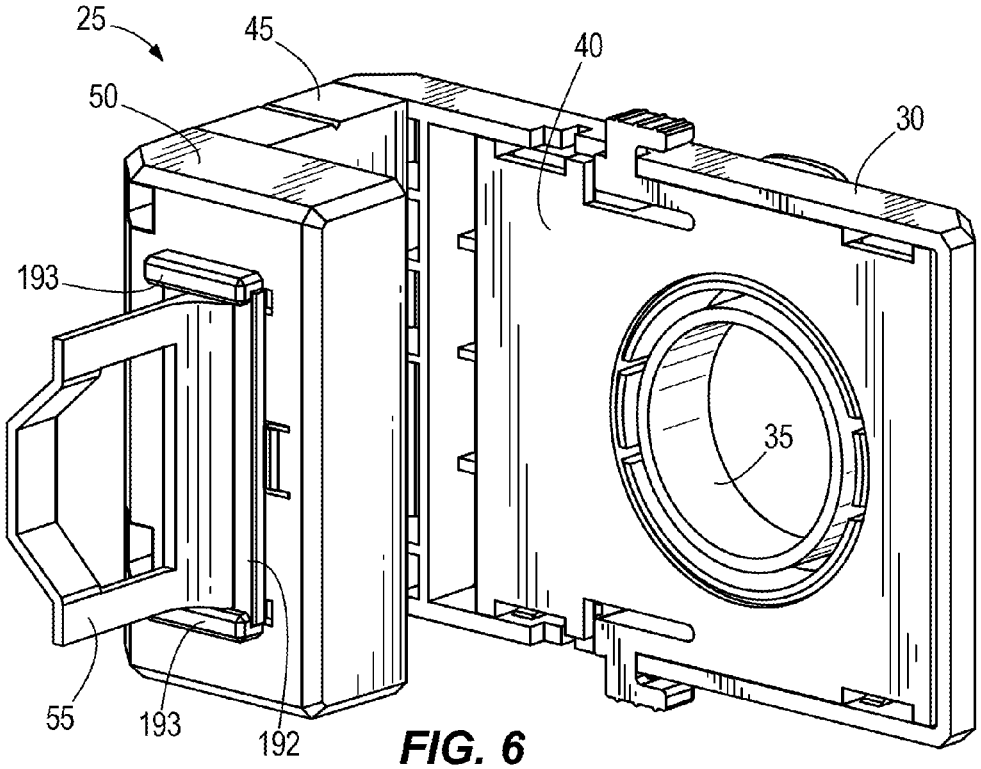
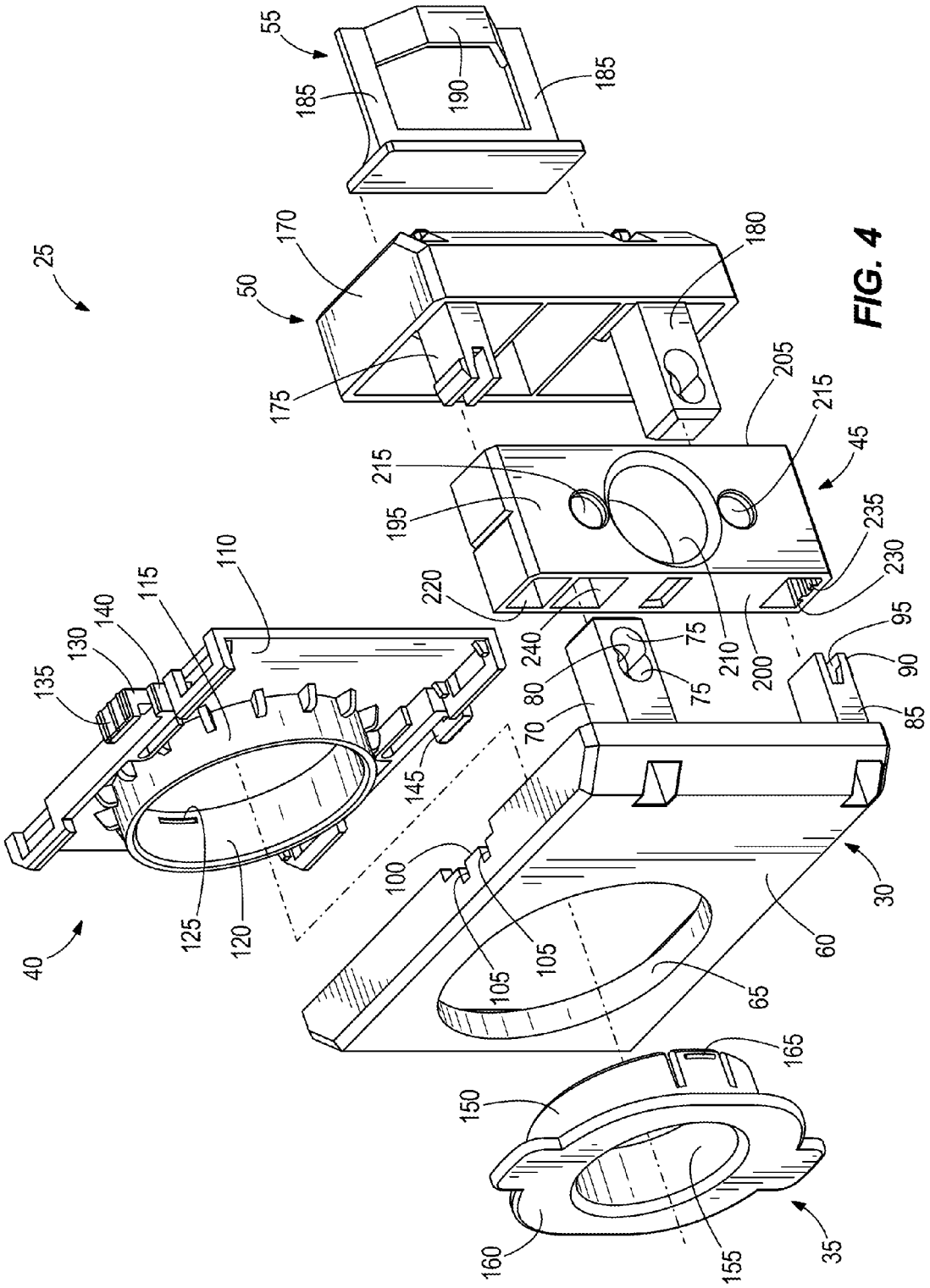


FIG. 6


25
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185
190
185
170
180
50
175
205
215
215
45
195
235
230
220
240
75
210
200
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90
80
75
85
70
110
115
140
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165
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35

FIG. 4

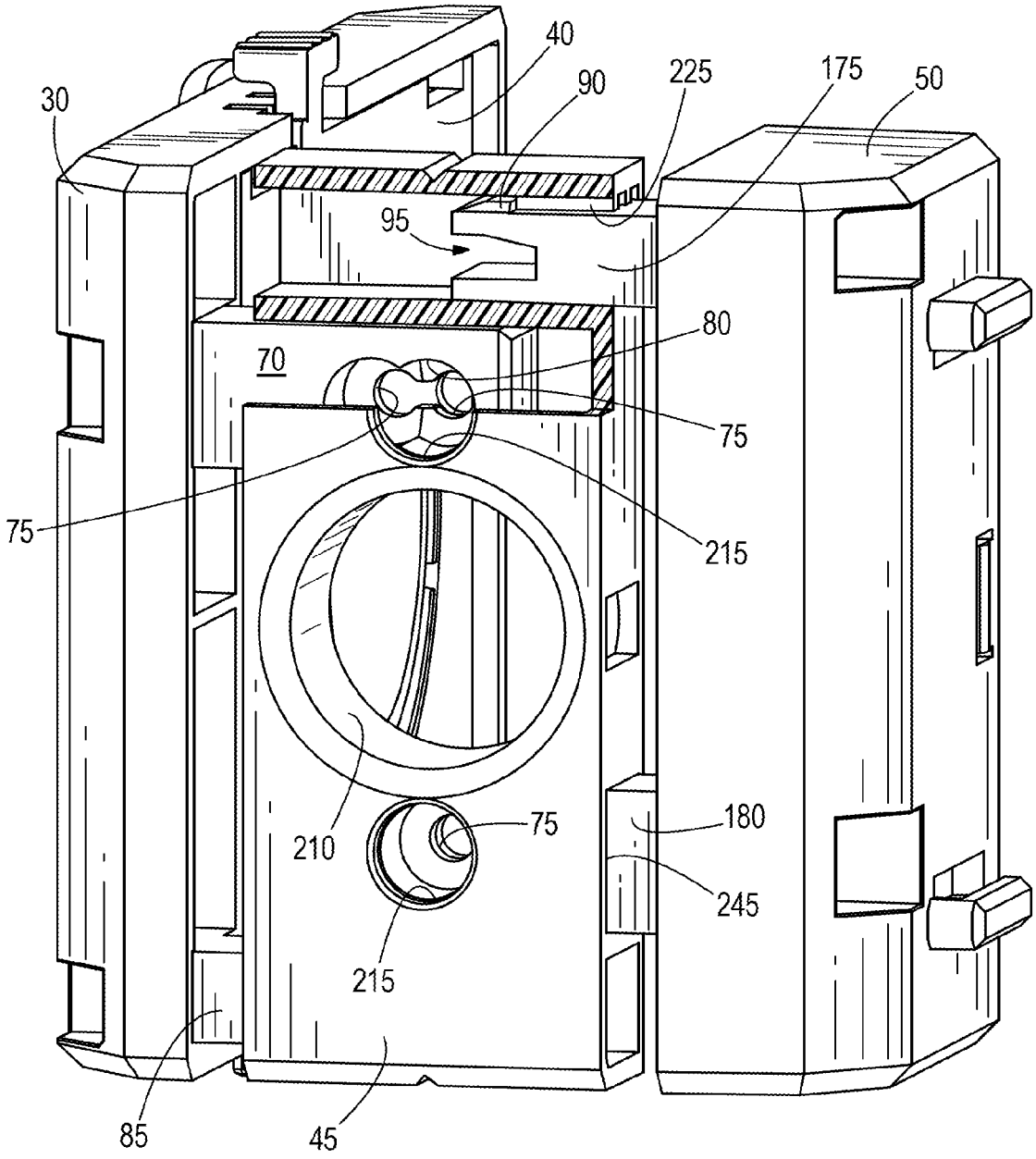

FIG. 5

DOOR LOCK INSTALLATION KIT

RELATED APPLICATION DATA

This application claims priority to U.S. Provisional Application No. 61/694,644 filed Aug. 29, 2012, the entire contents of which are incorporated herein by reference.

BACKGROUND

Doors are often sold without door lock hardware and without the apertures required to install the door lock hardware. Typically, installing the door lock hardware requires the drilling or boring of a front face hole that passes through the door and an end wall hole that is perpendicular to the front face hole and intersects the front face hole. Locating these holes can be difficult and can require a number of measurements. In addition, it can be difficult to position the two holes at the proper elevation.

SUMMARY

In one construction, the invention provides a door lock installation kit for use with a first standard door width and a second standard door width, each door having a side face and a front face. The tool includes a side hole guide including a side hole aperture arranged to abut the side face of the door, a guide housing movably coupled to the side hole guide, and a back housing movably coupled to the side hole guide and arranged such that the back housing and the guide housing are movable to clamp the door and position the guide housing to abut the front face of the door. A front hole guide includes a front hole guide aperture and is movably coupled to the guide housing and movable to one of a first position corresponding to a first door backset and a second position corresponding to a second door backset.

In another construction, the invention provides a door lock installation kit for use with a first standard door width and a second standard door width. The tool includes a side hole guide including a side hole aperture, a first slot, a second slot, a third slot, and a fourth slot and a guide housing including a front hole guide, a first arm arranged to engage the third slot, and a second arm arranged to engage the second slot, the first arm having a first configuration and the second arm having a second configuration different than the first configuration A back arm includes a third arm arranged to engage the first slot, and a fourth arm arranged to engage the fourth slot, the third arm having the second configuration and the fourth arm having the first configuration. The guide housing and the back arm are movable between a first position wherein the guide housing and the back arm abut the side hole guide to define a first width therebetween that is about equal to the first standard width, and a second position wherein the guide housing and the back arm define a second width therebetween that is about equal to the second standard width, and wherein the second arm and the third arm inhibit unwanted movement beyond the second width.

In yet another construction, the invention provides a door lock installation kit for use with a first standard door width and a second standard door width, The tool includes a side hole guide including a side hole aperture that extends along a first axis, a guide housing including a front hole guide, the guide housing movably coupled to the side hole guide, and a back arm movably coupled to the side hole guide and arranged such that the back arm and the guide housing cooperate to define a width, and wherein the back arm and the guide housing are movable between a first position corresponding to the first standard door width and a second position corresponding to the second standard door width. A front hole guide is movably coupled to the guide housing and includes a front hole guide aperture that extends along a second axis that is normal to the first axis, the front hole guide movable to one of a first position corresponding to a first door backset and a second position corresponding to a second door backset. A strike plate locator is connected to the back housing and movable to a position in which the strike plate locator is engageable with a strike plate in a door frame.

Other aspects of the invention will become apparent by consideration of the detailed description and accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a door lock installation kit in a first arrangement embodying the invention;

FIG. **2** is a perspective view of the door lock installation kit of FIG. **1** in a second arrangement;

FIG. **3** is another perspective view of the door lock installation kit of FIG. **1** in the first arrangement;

FIG. **4** is an exploded perspective view of the door lock installation kit of FIG. **1**;

FIG. **5** is a partially broken away view of a portion of the door lock installation kit of FIG. **1**; and

FIG. **6** is another perspective view of the door lock installation kit of FIG. **1** in the second arrangement.

Before any embodiments of the invention are explained in detail, it is to be understood that the invention is not limited in its application to the details of construction and the arrangement of components set forth in the following description or illustrated in the following drawings. The invention is capable of other embodiments and of being practiced or of being carried out in various ways. Also, it is to be understood that the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting. The use of "including," "comprising," or "having" and variations thereof herein is meant to encompass the items listed thereafter and equivalents thereof as well as additional items. Unless specified or limited otherwise, the terms "mounted," "connected," "supported," and "coupled" and variations thereof are used broadly and encompass both direct and indirect mountings, connections, supports, and couplings. Further, "connected" and "coupled" are not restricted to physical or mechanical connections or couplings.

DETAILED DESCRIPTION

In order to install door lock hardware into a door **10**, a user must properly drill a front hole and a side hole into the door **10**. The two holes must be properly positioned and aligned for the door hardware to function as designed. Typically, the side hole is drilled at a proper elevation (i.e., distance above the floor) in the center of a side edge **15** of the door **10**. The front hole is drilled at the same elevation through the front and rear faces **20** of the door **10**. The center of the front hole is spaced back from the side edge **15** of the door **10** a predetermined backset distance. Two standard backset distances are commonly used with doors **10** (e.g., 2.375 inches and 2.75 inches). In addition, standard doors **10** are typically either 1 inch thick or 0.75 inches thick.

The door lock installation kit **25** (DLIK) can assist an individual while installing a door lockset on doors **10** with various thicknesses and made from many different materials. The DLIK **25** can also accommodate backsets of a variety of distances, with an embodiment capable of accommodating

two backsets illustrated herein. The DLIK **25** can be constructed using a variety of materials including but not limited to plastics, steel aluminum, other metals, and composite materials.

FIG. **1** illustrates the DLIK **25** or tool for use in locating the holes that must be drilled in the door **10** to install the door lock hardware and that can accommodate the different standard door dimensions. As illustrated in FIG. **4**, the DLIK **25** includes a front hole guide housing **30**, a front hole guide **35**, a guide slide **40**, a side hole guide **45**, a back arm **50**, and a strike plate locator **55**.

The front hole guide housing **30** includes a substantially rectangular body **60** that extends substantially within a plane that, during use of the DLIK **25** is parallel to the front face **20** of the door **10**. A large aperture **65** is formed in the front hole guide housing **30**. In the illustrated construction, the aperture **65** is oval-shaped with other shapes and arrangements being possible. A first arm **70** extends from the rectangular body **60** along an axis that is substantially normal to the body **60**. The first arm **70** has a first configuration that includes a rectangular cross-section and two apertures **75** that pass through the first arm **70**. The two apertures **75** are arranged such that they overlap one another to create a single FIG. **8** shaped aperture **80** that is best illustrated in FIG. **5**. As illustrated, the two apertures **75** include cylindrical bores **75***a* with counterbores **75***b* that overlap to define the FIG. **8** shape **80**. A second arm **85** extends from the rectangular body **60** along an axis that is substantially normal to the body **60**. The second arm **85** has a second configuration that includes a rectangular cross-section and a hook **90** at a free end. A slot **95** is formed at the end adjacent the hook **90** to provide some flexibility to allow the hook **90** to deflect inward. The front hole guide housing **30** also includes a recess portion **100** and two slots **105** formed on each of the long edges of the rectangular body **60**.

In preferred constructions, the rectangular body **60**, the first arm **70**, and the second arm **85** are formed as a single component. However, other constructions may include arms **70**, **85** that attach to the rectangular body **60**.

Returning to FIG. **4**, the guide slide **40** includes a rectangular body portion **110** that extends in a plane approximately parallel to the front surface **20** of the door **10**. A cylindrical wall **115** extends in a direction normal to the rectangular body portion **110** to define a circular aperture **120** that extends through the rectangular body portion **110** with other shapes being possible. The cylindrical wall **115** includes a pair of slots **125** that extend around a portion of the circumference of the cylindrical wall **115**. A first tab member **130** is formed along the long edge of the rectangular body portion **110** and includes a finger engagement surface **135** and a key portion **140**. The first tab member **130** is movable between an engaged position and a disengaged position when a user applies pressure to the finger engagement surface **135**. A second tab member **145** is formed opposite the first tab member **130**. In preferred constructions, the rectangular body portion **110**, the cylindrical wall **115**, the first tab member **130**, and the second tab member **145** are formed as a single component. However, other constructions are possible.

The front hole guide **35** includes a cylindrical portion **150** that defines a hole **155** sized to guide a hole saw or drill bit during the process of cutting or drilling the front hole. A flange **160** extends around the cylindrical portion **150** and defines the outermost surface of the front hole guide **35**. The cylindrical portion **150** is sized to pass through the aperture **65** in the front hole guide housing **30** while the flange **160** is sized to inhibit the passage of the front hole guide **35** through the aperture **65**. Two tabs **165** are formed in the cylindrical portion **150** and are arranged to engage the slots **125** of the guide slide **40** as will be discussed.

With continued reference to FIG. **4**, the back arm **50** is a substantial mirror image of a portion of the front hole guide housing **30**. The back arm **50** includes a body portion **170** that supports a third arm **175** and a fourth arm **180**. The third arm **175** has the same configuration as the second arm **85** of the front hole guide housing **30** and the fourth arm **180** has the same configuration as the first arm **70** of the front hole guide housing **30**. The four arms **70**, **85**, **175**, **180** are arranged on opposite corners such that the first arm **70** is located near the uppermost corner of the front hole guide housing **30** and the fourth arm **180** is located near the lowermost corner of the back arm **50**. The second arm **85** is located near the lowermost corner of the front hole guide housing **30** while the third arm **175** is located near the uppermost corner of the back arm **50**.

In some constructions, the strike plate locator **55** is formed as part of the back arm **50** or attaches to the back arm **50** as illustrated in FIG. **4** and FIG. **6**. In the illustrated construction, the strike plate locator **55** includes a pair of arms **185** that support a trapezoidal cross member **190**. The cross member **190** is sized to engage a strike plate to position the DLIK **25** at the proper level above the floor as will be discussed in greater detail. The arms **185** engage a base **192** that is sized to slide into a pair of shoulders **193** which hold the strike plate locator **55** in the desired position.

The side hole guide **45** includes a substantially rectangular block **195** that includes a first elongated side **200** and a second elongated side **205**. A large aperture **210** is formed in the rectangular block **195** and is preferably centered between the first side edge **200** and the second side edge **205**. Two smaller apertures **215** are formed adjacent the large aperture **210** and extend in a direction parallel to the large aperture **210**. A first slot **220** is positioned near the top of the rectangular block **195** and extends from the first side **200** through to the second side **205**. The slot **220** includes a rectangular cross-section sized to receive the third arm **175**. A lock member **225** is formed within the first slot **220** (shown in FIG. **5**) and is sized to engage the hook **90** of the third arm **175**. A second slot **230** is positioned near the bottom of the rectangular block **195** and extends from the second side **205** through to the first side **200**. The slot **230** includes a rectangular cross-section sized to receive the second arm **85**. A lock member **235** is formed within the second slot **230** and is sized to engage the hook **90** of the second arm **85**. The lock member **235** of the first slot **220** and the second slot **230** are formed on opposite ends of the respective slots **220**, **230** as illustrated in FIG. **4**. A third slot **240** extends from the first side **200** toward the second side **205** just below the first slot **220**. The third slot **240** is substantially rectangular and intersects with one of the small apertures **215** adjacent the large aperture **210**. The fourth slot **245** extends from the second side **205** toward the first side **200** and is positioned just above the second slot **230**. The fourth slot **245** is rectangular in cross section and intersects the second small aperture **215** adjacent the large aperture **210**.

With continued reference to FIG. **4**, the DLIK **25** is assembled by first positioning the cylindrical wall **115** of the guide slide **40** within the large aperture **65** of the front hole guide housing **30**. The tabs **130**, **145** of the guide slide **40** fit within the recess portions **100** with the key portion **140** fitting within one of the two slots **105**. The front hole guide **35** is then inserted into the large aperture **65** of the front hole guide housing **30** and into the aperture **120** defined by the cylindrical wall **115**. The tabs **165** of the cylindrical portion **150** of the front hole guide **35** engage the slots **125** of the cylindrical wall **115** to lock the front hole guide **35** to the guide slide **40** with

the front hole guide housing **30** sandwiched therebetween. The key portions **140** of the tabs **130**, **145** lock the position of the front hole guide **35** in one of two backset positions and are movable between those positions as will be discussed.

The front hole guide housing **30** is then connected to the side hole guide **45**. The first arm **70** is inserted into the third slot **240** and freely slides within the third slot **240**. The second arm **85** is inserted into the second slot **230** by pushing the hook **90** beyond the lock member **235** formed in the second slot **230**. Once passed, the hook **90** snaps outward and engages the lock member **235** (see FIG. **5**) to inhibit the unwanted separation of the front hole guide housing **30** and the side hole guide **45**.

The back arm **50** is then connected to the side hole guide **45**. The fourth arm **180** is inserted into the fourth slot **245** and freely slides within the fourth slot **245**. The third arm **175** is inserted into the first slot **220** by pushing the hook **90** of the third arm **175** beyond the lock member **235** formed in the first slot **220**. Once passed, the hook **90** snaps outward and engages the lock member **235** (see FIG. **5**) to inhibit the unwanted separation of the back arm **50** and the side hole guide **45**.

The use of the DLIK **25** will be described with reference to FIGS. **1-3**. FIG. **1** illustrates the DLIK **25** in a first configuration in which the front hole guide housing **30** and the back arm **50** are arranged to accommodate the narrowest of the two standard door widths. In this arrangement, the front hole guide housing **30** and the back arm **50** are pushed into an abutting position with respect to the side hole guide **45**. In this position, one aperture **75** of the FIG. **8** shaped aperture **80** of the first arm **70** aligns with one of the small apertures **215** in the side hole guide **45**. The user can insert a pin through the two holes **75**, **215** to lock the position of the front hole guide housing **30** and the side hole guide **45**. Similarly, the aperture **75** in the fourth arm **180** aligns with the other of the small apertures **215**. The user can insert a second pin in the second aperture **75** and small aperture **215** to lock the position of the back arm **50** with respect to the side hole guide **45**. In other constructions, screws pass through the small apertures **215** and the apertures **75** and engage the door **10** to attach the DLIK **25** to the door **10**.

Returning to FIG. **1**, the front hole guide slide **40** is shown positioned in a first standard backset position. As illustrated, the key portion **140** is disposed within the slot **105** closest to the side hole guide **45** to lock the position of the front hole guide **35**.

FIG. **2** illustrates the DLIK **25** in a second configuration that allows the DLIK **25** to accommodate a door **10** having a second standard width that is wider than the first. In this position, the front hole guide housing **30** and the back arm **50** are spaced apart from the side hole guide **45**. As illustrated in FIG. **5**, the hooks **90** engage, or are close to engaging the lock member **225**, **235** in this position to inhibit further expansion of the DLIK **25**. In the second configuration, the second aperture **75** of the FIG. **8** shaped aperture **80** of the first arm **70** aligns with one of the small apertures **215** of the side hole guide **45** for receipt of the pin. With the pin inserted, the position of the front hole guide housing **30** is locked with respect to the side hole guide **45**. Similarly, the second aperture **75** of the FIG. **8** shaped aperture **80** of the fourth arm **180** aligns with the other small aperture **215** for the receipt of a pin. With the pin installed, the position of the back arm **50** is fixed with respect to the side hole guide **45**.

FIGS. **2** and **3** also illustrate the front hole guide slide **40** in a second backset position that is different than the first. Specifically, the second backset position is further back from the side hole guide **45** than the first backset position. In this position, the key portion **140** engages the second slot **105** to lock the guide slide **40** and the front hole guide **35** in the desired position.

To use the DLIK **25**, the user first positions the DLIK **25** in one of the two door width positions corresponding with the door **10** to which the lock hardware is being installed. The user than positions the guide slide **40** in the proper position for the desired backset. The DLIK **25** is then positioned on the door **10** and the strike plate locator **55** is extended. The strike plate locator **55** is aligned with the strike plate to position the DLIK **25** at the proper elevation on the door **10**. The user than drills, or marks the location to be drilled for the front hole and the side hole to complete the preparation of the door **10** for the installation of the door lock hardware.

The DLIK **25** can be used to accommodate a variety of door thicknesses and lock backsets. FIG. **1** demonstrates one possible configuration where the DLIK **25** is set for a door width that is a minimum and the lock backset is set to a minimum distance. After the DLIK **25** is secured to the door **10** the user would, in no particular order, drill the side hole and then the front hole. After holes have been drilled, the user would remove the screws or pins and then remove the DLIK **25** from the door **10**.

FIG. **2** demonstrates another possible door thickness and lock backset setting. In this embodiment, the DLIK **25** is set to accommodate a door width that is a maximum, and the lock backset is set to a maximum distance. After the DLIK **25** is secured to the door **10** the user would, in no particular order, drill the side hole and the front hole. After the holes have been drilled the user would remove the screws or pins and then remove the DLIK **25** from the door **10**.

Various features and advantages of the invention are set forth in the following claims.

What is claimed is:

1. A door lock installation tool for use with a first standard door width and a second standard door width, each door having a side face and a front face, the tool comprising:

a side hole guide including a side hole aperture arranged to abut the side face of the door;

a guide housing movably coupled to the side hole guide;

a back housing movably coupled to the side hole guide and arranged such that the back housing and the guide housing are movable to clamp the door and position the guide housing to abut the front face of the door;

a front hole guide including a front hole guide aperture, the front hole guide movably coupled to the guide housing and movable to one of a first position corresponding to a first door backset and a second position corresponding to a second door backset;

wherein the side hole aperture defines a first axis, the side hole guide further comprising a first slot, a second slot, a third slot, and a fourth slot each arranged to extend along axes that are normal to the first axis.

2. The door lock installation tool of claim **1**, wherein the first slot includes a first stop formed at a first end and the second slot includes a second stop formed at a second end opposite the first end.

3. The door lock installation tool of claim **1**, wherein the guide housing includes a first arm having a first configuration arranged to engage the third slot and a second arm having a second configuration arranged to engage the second slot, wherein the second configuration is different than the first configuration.

4. The door lock installation tool of claim **3**, wherein the back arm includes a third arm having the second configuration arranged to engage the first slot and a fourth arm having the first configuration arranged to engage the fourth slot.

5. The door lock installation tool of claim 4, wherein each of the first arm and the fourth arm includes an aperture arranged to receive a pin to lock the guide housing and the back arm respectively in one of a first position to clamp to a door having the first standard door width and a second position to clamp to a door having the second standard door width.

6. The door lock installation tool of claim 4, wherein the first slot includes a first stop formed at a first end and the second slot includes a second stop formed at a second end opposite the first end, and wherein each of the second arm and the third arm includes a hook arranged to engage the respective stop.

7. A door lock installation tool for use with a first standard door width and a second standard door width, each door having a side face and a front face, the tool comprising:

a side hole guide including a side hole aperture arranged to abut the side face of the door;

a guide housing movably coupled to the side hole guide;

a back housing movably coupled to the side hole guide and arranged such that the back housing and the guide housing are movable to clamp the door and position the guide housing to abut the front face of the; and

a front hole guide including a front hole guide aperture, the front hole guide movably coupled to the guide housing and movable to one of a first position corresponding to a first door backset and a second position corresponding to a second door backset, wherein one of the guide housing and the front hole guide includes two slots and the other of the guide housing and the front hole guide includes a key portion sized to engage the slots, and wherein the slots are positioned to position the front hole guide in one of the first position and the second position.

8. The door lock installation tool of claim 1, further comprising a strike plate locator connected to the back housing and movable to a position in which the strike plate locator is engageable with a strike plate in a door frame.

9. A door lock installation tool for use with a first standard door width and a second standard door width, the tool comprising:

a side hole guide including a side hole aperture, a first slot, a second slot, a third slot, and a fourth slot;

a guide housing including a front hole guide, a first arm arranged to engage the third slot, and a second arm arranged to engage the second slot, the first arm having a first configuration and the second arm having a second configuration different than the first configuration; and

a back arm including a third arm arranged to engage the first slot, and a fourth arm arranged to engage the fourth slot, the third arm having the second configuration and the fourth arm having the first configuration, the guide housing and the back arm movable between a first position wherein the guide housing and the back arm abut the side hole guide to define a first width therebetween that is about equal to the first standard width, and a second position wherein the guide housing and the back arm define a second width therebetween that is about equal to the second standard width, and wherein the second arm and the third arm inhibit unwanted movement beyond the second width.

10. The door lock installation tool of claim 9, wherein the side hole aperture defines a first axis, and wherein the first slot, the second slot, the third slot, and the fourth slot are each arranged to extend along axes that are normal to the first axis.

11. The door lock installation tool of claim 10, wherein the first slot includes a first stop formed at a first end and the second slot includes a second stop formed at a second end opposite the first end.

12. The door lock installation tool of claim 11, each of the second arm and the third arm includes a hook arranged to engage the respective stop.

13. The door lock installation tool of claim 9, wherein each of the first arm and the fourth arm includes an aperture arranged to receive a pin to lock the guide housing and the back arm respectively in one of a first position to clamp to a door having the first standard door width and a second position to clamp to a door having the second standard door width.

14. The door lock installation tool of claim 9, further comprising a front hole guide including a front hole guide aperture, the front hole guide movably coupled to the guide housing and movable to one of a first position corresponding to a first door backset and a second position corresponding to a second door backset.

15. The door lock installation tool of claim 9, wherein one of the guide housing and the front hole guide includes two slots and the other of the guide housing and the front hole guide includes a key portion sized to engage the slots.

16. The door lock installation tool of claim 9, further comprising a strike plate locator connected to the back housing and movable to a position in which the strike plate locator is engageable with a strike plate in a door frame.

17. A door lock installation tool for use with a first standard door width and a second standard door width, the tool comprising:

a side hole guide including a side hole aperture that extends along a first axis;

a guide housing including a front hole guide, the guide housing movably coupled to the side hole guide;

a back arm movably coupled to the side hole guide and arranged such that the back arm and the guide housing cooperate to define a width, and wherein the back arm and the guide housing are movable between a first position corresponding to the first standard door width and a second position corresponding to the second standard door width;

a front hole guide movable coupled to the guide housing and including a front hole guide aperture that extends along a second axis that is normal to the first axis, the front hole guide movable to one of a first position corresponding to a first door backset and a second position corresponding to a second door backset; and

a strike plate locator connected to the back housing and movable to a position in which the strike plate locator is engageable with a strike plate in a door frame;

wherein the side hole guide further comprises a first slot, a second slot, a third slot, and a fourth slot each arranged to extend along axes that are normal to the first axis.

18. The door lock installation tool of claim 17, wherein the first slot includes a first stop formed at a first end and the second slot includes a second stop formed at a second end opposite the first end.

19. The door lock installation tool of claim 17, wherein the guide housing includes a first arm having a first configuration arranged to engage the third slot and a second arm having a second configuration arranged to engage the second slot, wherein the second configuration is different than the first configuration.

20. The door lock installation tool of claim 19, wherein the back arm includes a third arm having the second configuration arranged to engage the first slot and a fourth arm having the first configuration arranged to engage the fourth slot.

21. The door lock installation tool of claim 20, wherein each of the first arm and the fourth arm includes an aperture arranged to receive a pin to lock the guide housing and the back arm respectively in one of a first position to clamp to a

door having the first standard door width and a second position to clamp to a door having the second standard door width.

22. The door lock installation tool of claim **20**, wherein the first slot includes a first stop formed at a first end and the second slot includes a second stop formed at a second end opposite the first end, and wherein each of the second arm and the third arm includes a hook arranged to engage the respective stop.

23. A door lock installation tool for use with a first door having a first standard door width and a second door having a second standard door width different than the first standard door width, each of the first door and the second door including a door edge, the tool comprising:

a side hole guide including a side hole aperture that extends along a first axis;

a guide housing including a front hole guide, the guide housing movably coupled to the side hole guide;

a back arm movably coupled to the side hole guide and arranged such that the back arm and the guide housing cooperate to define a width, and wherein the back arm and the guide housing are each movable to one of a first position corresponding to the first standard door width and a second position corresponding to the second standard door width, and wherein when the back arm and the guide housing are in the first position, the side hole aperture is automatically centered on the edge of the first door and when the back arm and the guide housing are in the second position, the side hole aperture is automatically centered on the edge of the second door, and wherein the back arm and the guide housing each slide linearly between the first position and the second position;

a front hole guide movable coupled to the guide housing and including a front hole guide aperture that extends along a second axis that is normal to the first axis, the front hole guide movable to one of a first position corresponding to a first door backset and a second position corresponding to a second door backset; and

a strike plate locator connected to the back arm and movable to a position in which the strike plate locator is engageable with a strike plate in a door frame, wherein one of the guide housing and the front hole guide includes two slots and the other of the guide housing and the front hole guide includes a key portion sized to engage the slots, and wherein the slots are positioned to position the front hole guide in one of the first position and the second position.

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